CORRECTIVE MEASURES IMPLEMENTATION (CMI)/ REMEDIAL ACTION IMPLEMENTATION PLAN (RAIP) FORMAT

1.0 GENERAL DESCRIPTION

1.1 Purpose and Scope

This post-Record of Decision (ROD) document provides the following items for the implementation of the selected remedial action (RA) established in the ROD (WSRC XXXX) for the operable unit name (OU):

- A general description of the location and history of the site, description of the constituents of concern (COC) to be remedied and an overview of the selected RA
- A summary of any associated study (if applicable) and the application of its results in the remedial design
- An outline of the necessary design tasks
- A design summary highlighting the results of each of the design tasks performed to accomplish the objectives of the selected RA
- A summary of the construction strategy addressing critical components of construction activities required to implement the remedial design
- Requirements for health and safety, waste management, contamination control, decontamination, quality assurance, quality control inspections, performance verifications (sampling, testing/analysis, when applicable), post-construction operations, maintenance and institutional controls, project closeout, post-construction monitoring and a forecast schedule for implementation of the RA
- A forecast schedule and brief discussion of the contents of the upcoming post-ROD documents required by the Federal Facility Agreement (FFA) for the Savannah River Site (SRS)

1.2 General Description and History of the Unit

[Briefly describes the waste unit. The description should include location, size, and the background operational history of the unit. The section may also include a short paragraph identifying the predecessor documents related to the selection of the RA. Provide figures showing the RA location at SRS and an RA site layout. A very condensed presentation of information is appropriate for this section since the same information has been covered in greater detail in previous documents required by the FFA process.]

1.3 Nature and Extent of Contamination

[Briefly identifies the COCs (table may be used) identified in the ROD that are considered for RA, and the associated risks, specific components of the unit requiring remediation and locations of COCs with respect to the zone of remediation (areas and depths). Because the information is covered in greater detail in previous FFA documents, a condensed presentation (synopsis or summary) is appropriate for this section. Provide figures or maps for the design clarification of data already provided in the ROD to illustrate the nature and horizontal and vertical extent of COCs within the respective media of concern and area(s) targeted/goals for the RA.]

1.4 Document Format

1.4.1 Format of CMI/RAIP

[Typically addresses the document format used, including the basis for the format. This section should include specific details regarding any deviation from the generic description as well as the basis for the deviation.]

[Note: CMI is used in the title when the waste unit is a Resource Conservation and Recovery Act (RCRA) unit. RAIP is used in the title when the waste unit is a Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) unit])

1.5 Remedial Action

As stated in the ROD, the selected RA for the *Operable Unit Name* included the following elements:

[Provide text from ROD. The discussion will also include the rationale (e.g., brief explanation of link between RAs and remedial action objectives (RAOs), industrial land use or ecological concern) for selection of the RA objectives and remedial goals. Table X in Section 2.5 lists ARARs associated with the RA.]

[A conceptual site model (CSM) (Figure X) illustrates how implementation of the RA breaks the exposure pathways.]

Figure X. Title of Figure (Shows location of waste unit)

1.6 Remedial Action Objectives

As stated in the ROD (WSRC XXXX), the RAOs for the *Operable Unit Name* are as follows:

[Provide text from ROD.]

1.7 Remedial Action Implementation Schedule

[Provides the unit-specific RA implementation schedule as Figure X.]

1.8 Community Relations

[Provides a brief summary of public involvement activities related to the subject waste unit, including applicable resolutions of public comments by appropriate references to the sections in the ROD. A very condensed presentation of information is appropriate for this section because this information is presented in greater detail in previous documents required by the FFA process.]

[In addition, this section includes any unit-specific item that was identified for the resolution of public comments, related to the selected RA. In accordance with USEPA's "Community Relations Handbook" (#EPA/540 R-92/009, January 1992), upon completion of the final engineering design the agency must issue a "FACT SHEET" and provide a public briefing, as appropriate prior to beginning remedial action. A fact sheet on the RA is attached as Appendix A to inform interested parties about activities related to the RA and that an opportunity for a public briefing will be held before initiation of the RA.]

2.0 REMEDIAL DESIGN

2.1 Design Strategy

[Provides brief description of the remedial design strategy (e.g., identification of definitive design, performance-based design, vendor supplied design, multi-phased design, etc.).]

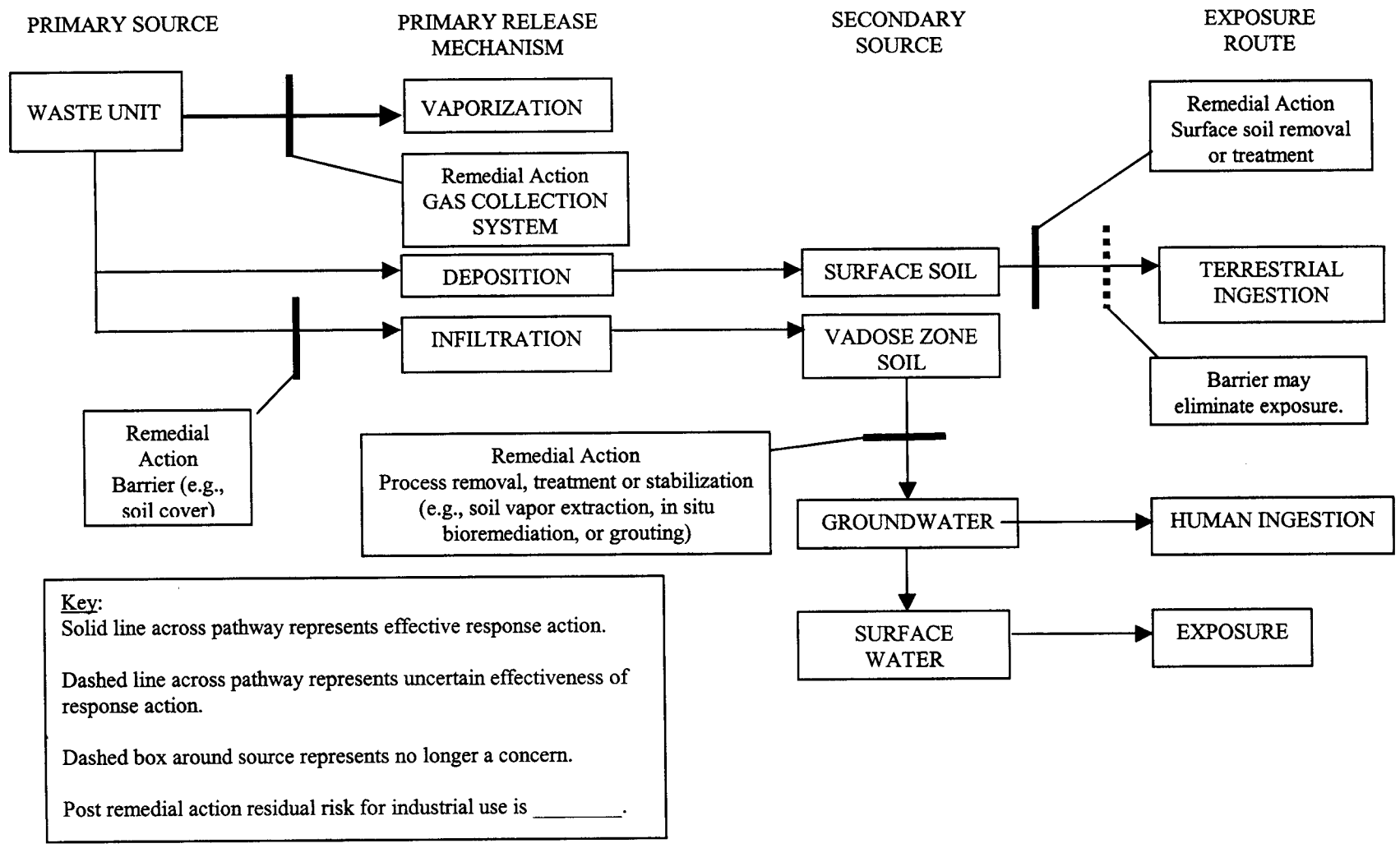

Figure X. Post-Remedial Action Conceptual Site Model for [Name of Unit]

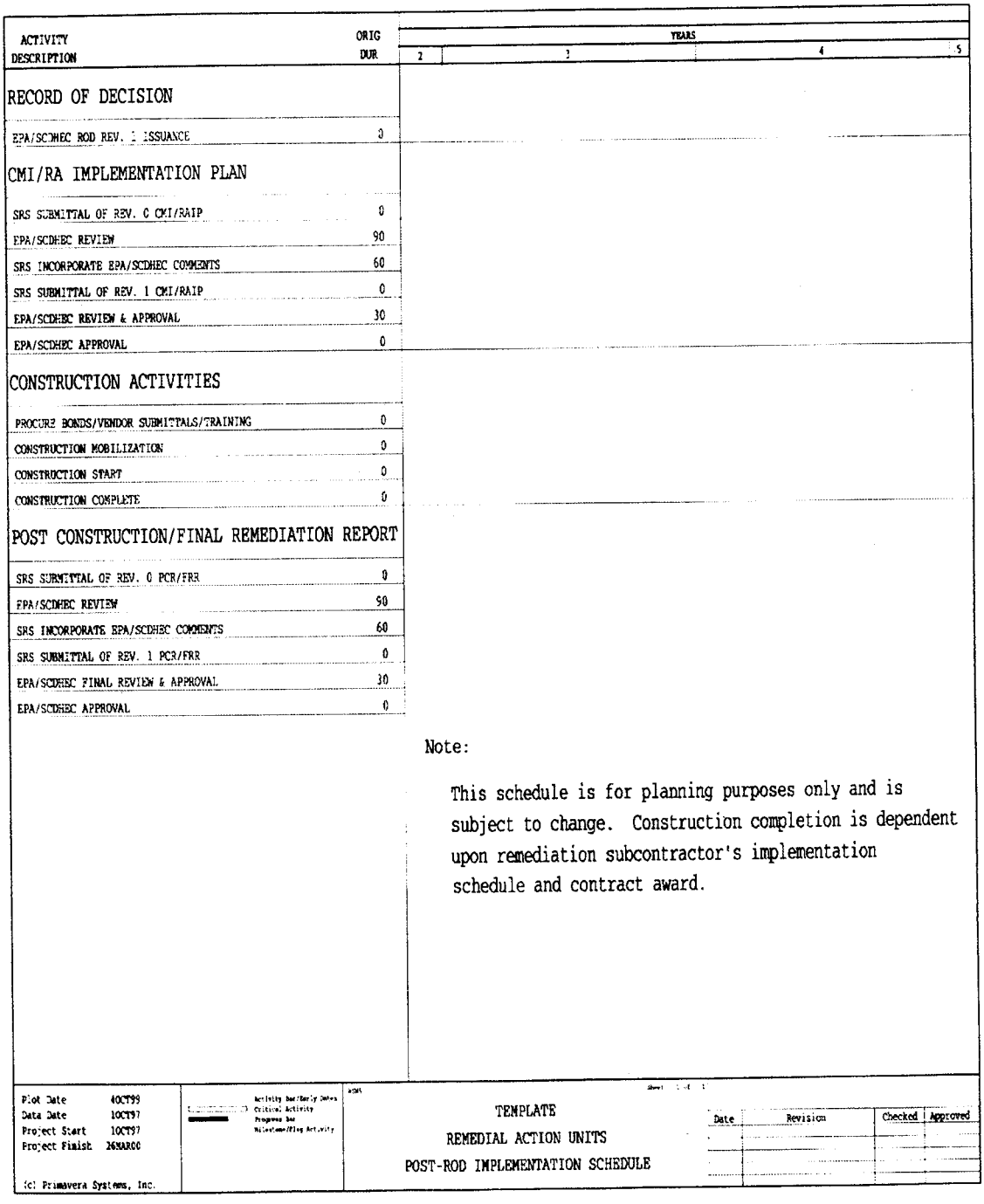

Figure X. Remedial Action Units Post-ROD Implementation Schedule Design Deliverables

2.2 Design Activities

[Provides a list of design tasks, including development of the permit applications required to implement the selected RA. This section should also include any design activity that was performed to complete the definitive design, e.g., treatability studies, bench-scale grout mix design, etc.]

2.3 Design Deliverable

[Provides a list of the design deliverables for this RA, including the required permit documents. The list includes design drawings, design technical information, permit documents, applicable sampling, analysis, and test plans, etc., which are necessary to verify that the RA objectives have been met.]

2.4 Results of Data Acquisition

2.4.1 Evaluation of Studies

[Provides a summary level description of any study performed, including the application of the results and conclusion from the study to the remedial design. If no treatability study was performed, a statement should be included to indicate that none was required.]

2.4.2 Other Design Data

[Provides results of any data gathered to support the remedial design (e.g., sampling, topographic, or other surveys). References to all applicable and related reports should also be included.]

2.5 Design Criteria

[Provides functional requirements and design criteria based on USDOE Orders, national consensus standards, SRS and regulatory requirements needed to ensure the design meets RA objectives and goals per the ROD document. Provides a table of applicable or relevant and appropriate requirements (ARARs) (i.e., Table X) which includes the ARAR type, citation, status, a brief descriptive summary of what the ARAR requires and a brief explanation for inclusion of the ARAR. The list of ARARs will include those in the ROD that are related to the selected remedy and also any additional ARARs identified during the remedial design process.]

Table X. Compliance with ARARs for the Selected Remedial Action

	Citations (S)	Status	Requirement Summary	Reason for Inclusion
A)	**Chemical Specific ARAR**			
	40 CFR 263 and SC 4.61-79.263 Standards Applicable to Transporters of Hazardous Waste (For example)	Applicable	Identifies transporter requirements including manifests, record keeping, and actions for accidental waste discharges.	Applicable to offsite transportation of RCRA hazardous waste.
B)	**Location Specific ARAR**			
	Executive Order 11990 (For example)	Applicable	The remedial action must minimize the destruction, loss, or degradation of wetlands.	Wetlands are located in the vicinity of the waste unit; however, they will be unaffected by this action.
C)	**Action Specific ARARs**			
	SC R.72-300 Standards for Stormwater Management and Sediment Reduction (For example)	Applicable	Stormwater management and sediment control plan for land disturbances.	Excavation activities will require an erosion control plan.
	29 CFR 1910 Occupational Worker Safety (OSHA) (For example)	Applicable	Identifies health and safety requirements for remediation workers.	Worker activities involving hazardous materials must be conducted according to a project health and safety plan.

2.6 Drawings

[Provides a list and brief description of the design drawings developed during the remedial design.]

2.7 Design Technical Information

[Provides a summary of the construction specifications developed during the remedial design.]

3.0 PERMITTING REQUIREMENTS

[Identifies and describes all permitting activities required for the selected RA. The related schedule for each applicable regulatory permit submittal is also included. A copy of permit documents, which are approved by other departments or authorized representatives of USEPA or SCDHEC (e.g., Stormwater Management and Sediment Reduction Plans, Monitoring Well Program Plans, Air Quality Control Permits) may be provided for reference. However, do not include them as an attachment. Add a statement on the cover sheet of the document that reads "Reference - for Information Only."]

4.0 CONSTRUCTION

4.1 Construction Strategy

[Provides a brief description of the construction strategy (e.g., discussion of construction in phases, construction by subcontractor, construction using new technology, etc.) for implementation of the remedial design.]

4.2 Construction Activities

[Provides a summary of the conceptual construction activities that are critical for implementation of the RA. Unless such activities have been concurred with by the constructor, at this stage they will be considered conceptual (anticipated based on past experiences).]

4.3 Remedial Design Change Control

[Provides a standard procedure for documenting and reporting changes to the remedial design after the remedial design document has been approved by USEPA and SCDHEC. This section will be included in the generic document. The following statement (or

similar words with the same intent) should be included in this section. "USDOE will notify USEPA and SCDHEC, within a reasonable time frame, when significant problems arise with any aspect of the Remedial Design/RA process. In particular, scheduling, budget and implementability/technical issues should be brought to the attention of the regulators as soon as they are identified. Notifications will follow established protocols for major and minor changes during construction." If the change is considered major, NCP Section 300.435(c)(2)(i) or (ii) will be followed for public participation requirements. Section 300.435(c)(2)(i) applies to ESD for RODs and (ii) applies to ROD amendments.]

4.4 Waste Disposal and Transport

[Describes the specific details consistent with the unit's waste management plan, that will be used for waste characterization (e.g., testing methods), disposal (include location such as onsite, off-site at SRS, off SRS at XYZ facility) and transportation (include contaminant limits) during construction, as applicable to the selected RA. It also includes the status of any permit required for handling, disposing and transporting wastes.]

4.5 Quality Assurance

[Provides a summary of quality assurance (QA) and quality control procedures that will be implemented to ensure successful implementation of the remedial action. It also includes any special or unit-specific strategy applicable to the remedial action.]

4.6 Non-Conformances

[Provides the anticipated steps and procedures that will be used to resolve construction non-conformances with respect to the required acceptance criteria in the specifications. This section also provides a description of the contingency plan to be used during this construction phase if construction activities cannot be completed as designed.]

4.7 Health and Safety Plan (HASP)

[This section provides health and safety requirements, consistent with SRS procedures, that will be implemented during the RA. The section includes any special or unit-specific requirements for worker safety during construction. Except for unit- specific items, this section will be included in the generic document. The HASP may be included with the post-ROD document package for reference only; it should not be used as an attachment to the CMI/RAIP. If this is the case, add a statement on the cover sheet of the document that reads "Reference – For Information Only".]

5.0 POST CONSTRUCTION

5.1 Post-Construction Monitoring

[Provides the long- and short-term (including type of sampling, sampling frequency, criteria, and reporting information) to monitor the effectiveness of the implemented RA (e.g., monitoring of groundwater affected by the remediated unit). Includes maps showing the location of remediation and zone of influence.]

Map should show general grid coordinates but not exact coordinates of remediation actions. Also, provides criteria for turnover to the next remedial phase (e.g., startup to operation phase).]

Figure X. Map(s) for Section 5.1

5.2 Contingency Plan Implementation Strategy

[Refers to the HASP for standard SRS emergency procedures. This section provides for contingencies after completion of construction, including any special or unit-specific responses and actions to be taken if the implemented RA fails to perform.]

5.3 Operations, Maintenance, and Institutional Control

[Describes start-up and operational procedures for equipment and process systems required by the selected RA. The section also provides maintenance and institutional control information. In addition, it includes any special or unit-specific requirements applicable to the selected RA. For RODs requiring land use controls, a LUCIP will be issued. The duration of land use controls will be specified. Standard maintenance and institutional control requirements will be identified in the LUCIP.]

5.4 Requirements for Project Closeout

[Provides field data collection and performance verification requirements (including sampling, analysis, and testing plans, when applicable) and procedures to verify that the RA objectives have been met. It also addresses updating the design documents as required for configuration management to incorporate design changes during construction.]

5.5 Schedule for Federal Facility Agreement Deliverables

[Provides submittal schedule for the next post-ROD documents (Post-Construction Report (PCR) and the Final Remediation Report (FRR)) required by the FFA. For waste sites not requiring an extended operational equipment RA, the PCR and FRR may be combined into a single document.]

6.0 REFERENCES

[Provides a list of documents referenced in the body of the CMI/RAIP document. If a copy of any reference is included in the package, add the statement "Copy included for information" after the reference is cited in the list.]

7.0 APPENDICES

Appendix A [Provides the unit-specific fact sheet.]

8.0 ATTACHMENTS

[Attach design drawings and plans referenced in the body of the CMI/RAIP. Include engineering design drawings and plans and vendor-supplied design drawings and plans. Documents such as construction and fabrication documents need not be included since they are not design documents.]

Attachment A List of Drawings

APPENDIX A

FACT SHEET

[Remedial Action Title] Fact Sheet]

Location

[Briefly describes the waste unit. The description should include location and size of the unit.]

History

[Briefly describes the waste unit's history. The description should include operation of the facility, the duration of use and the type of contamination deposited.]

Remedial Action

[Briefly describes the RA selected in the ROD, the broken pathways and the remaining risks associated with the operable unit after implementation of the remedy. Also, describes the land use controls and specifies its duration.]

ATTACHMENT A

LIST OF DRAWINGS

[Provides lists of attachments that contain the design drawings and plans related to this CMI/RAIP.]